

## CLAIMS:

1. A method for producing an article made of plastics by an injection molding process, the method comprising:

5           providing a molding die assembly for molding a plastics material, comprising a first die and a second die, each having a molding surface, said first and second dies being adapted to be brought into a mating engagement wherein a molding cavity is formed between said first and second dies by respective molding surfaces, said first die being movable between a molding station where the first die is brought  
10   into said mating engagement with said second die and a coating station;

          heating said first die of said molding die assembly to a temperature of at least 50°C, placing said movable die at said coating station, and applying a liquid coating material on said molding surface of said movable die;

          moving said movable die to a drying chamber maintained at least at a  
15   temperature of 50°C to have the coating material applied on said molding surface of the first die partially dried, and then to said molding station;

          bringing said first die into said mating engagement with said second die of said die assembly to form said molding cavity; and

          injecting molten plastics into said molding cavity to form a molded product  
20   having thereon a coating of said coating material.

2. The method in accordance with claim 1 wherein said heating step is carried out in said molding station.

25           3. The method in accordance with claim 1 wherein said first die is maintained in said drying chamber for a predetermined time so that the coating material applied on said molding surface of the first die is partially dried.

4. The method in accordance with claim 1 wherein said first die is movable in a vertical direction.

5        5. The method in accordance with claim 1 wherein said liquid coating material is applied to said molding surface of said first die so that a coating of about 6 to about 20  $\mu\text{m}$  (micro-meter) is formed.

6. A method for producing an article made of plastics through an injection molding process, the method comprising:

10        providing a molding die assembly for molding a plastics material, comprising a first die and a second die, each having a molding surface, said first and second dies being adapted to be brought into a mating engagement wherein a molding cavity is formed between said first and second dies by respective molding surfaces, said first die being movable between a molding station where the first die is brought into said mating engagement with said second die and a coating station;

15        heating said first die of said molding die assembly at a temperature of 50 to 70°C, placing said first die at a coating station, and applying a liquid acrylic lacquer coating material on said molding surface of said first die;

20        transferring said movable die to a drying chamber maintained at a temperature of 50 to 60°C, and maintaining said movable die in said drying chamber for 30 to 90 seconds to have said coating applied on said molding surface of the first molding die partially dried;

25        transferring said first die to said molding station and bringing said first die into mating engagement with said second die of said die assembly to form a molding cavity between the respective molding surfaces of said first and second dies; and

injecting a molten plastics material into said molding cavity to form a molded product having an acrylic lacquer coating on its surface.

7. The method in accordance with claim 1 wherein said liquid coating material is applied to said molding surface of said first die so that a coating of about 6 to about 20  $\mu\text{m}$  (micro-meter) is formed.

8. A method for producing an article made of plastics through an injection molding process, the method comprising:

providing a molding die assembly for molding a plastics material, comprising a first die and a second die, each having a molding surface, said first and second dies being adapted to be brought into a mating engagement wherein a molding cavity is formed between said first and second dies by respective molding surfaces, said first die being movable between a molding station where the first die is brought into said mating engagement with said second die and a coating station;

heating said first die of said molding die assembly at a temperature of 60 to 95°C, placing said first die at said coating station and applying a coating of a liquid urethane-based or epoxy-based coating material on said molding surface of said first die;

transferring said first die to a drying chamber maintained at a temperature of 80 to 90°C, and maintaining said first die in said drying chamber for 6 to 30 seconds to have said coating applied on said molding surface of said first die partly dried;

transferring said first die to said molding station and bringing said first die into mating engagement with said second die of said die assembly to form a molding cavity between the respective molding surfaces of said first and second dies; and

injecting a molten plastics material into said molding cavity to form a

molded product having a coating of said coating material on its surface.

9. The method in accordance with claim 8 wherein said liquid coating material is applied to said molding surface of said first die so that a coating of about 6 to about  
5 20  $\mu\text{m}$  (micro-meter) is formed.